

U.S. Patent Application Serial No.: 10/092,309
Amendment Under 37 C.F.R. §1.111 dated September 7, 2004
Response to the Office Action of June 4, 2004

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended): An electronic apparatus comprising:
a liquid crystal display device including a plurality of light sources including a cold cathode fluorescent lamp and a light emitting diode, and including a liquid crystal unit; and
a controller for selecting and operating at least one of said plurality of light sources in accordance with desired brightness of said liquid crystal display device,
said controller selecting said cold cathode fluorescent lamp when said desired brightness is above a predetermined threshold, and
said controller selecting said light emitting diode, when said desired brightness is equal to or lower than said predetermined threshold, and when a battery is available as a power supply and an AC power supply is not available.

Claim 2 (Original): The electronic apparatus according to Claim 1 wherein said controller determines brightness of said selected light source in accordance with said desired brightness.

Claim 3 (Canceled)

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Claim 4 (Original): The electronic apparatus according to Claim 1 wherein said controller selects said cold cathode fluorescent lamp when an AC power supply is available.

Claim 5 (Canceled)

Claim 6 (Original): The electronic apparatus according to Claim 1 wherein said liquid crystal display device further includes at least one light guide plate for directing light entering thereinto from at least one of said plurality of light sources through an end surface thereof toward said liquid crystal unit.

Claim 7 (Original): The electronic apparatus according to Claim 6 wherein said light guide plate has a generally rectangular shape and has a substantially uniform thickness.

Claim 8 (Original): The electronic apparatus according to Claim 6 wherein said light guide plate has a generally rectangular shape and has a thickness tapering from one side toward an opposite side.

Claim 9 (Original): The electronic apparatus according to Claim 6 wherein said light guide plate has a generally rectangular shape and has a thickness tapering from opposing two sides thereof toward a center line.

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Claim 10 (Original): The electronic apparatus according to Claim 6 wherein said light guide plate has a generally rectangular shape and has its thickness tapering from one of a pair of opposing sides to the other and from one of the other pair of opposing sides to the other.

Claim 11 (Original): The electronic apparatus according to Claim 6 wherein a plurality of parallel grooves are formed in a rear surface of said light guide plate so that light entering into said light guide plate can be scattered by a rear portion of said light guide plate.

Claim 12 (Original): The electronic apparatus according to Claim 1 wherein said liquid crystal display device further includes at least one light guide plate for scattering and directing light entering from at least one of said plurality of light sources into said light guide plate through an end surface thereof toward said liquid crystal unit.

Claim 13 (Original): The electronic apparatus according to Claim 1 wherein said liquid crystal display device further includes a light guide member for scattering light entering thereinto through at least one surface thereof and causing the scattered light to go out through another surface thereof, and a light guide plate for directing said scattered light entering thereinto through an end surface thereof toward said liquid crystal unit.

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Claim 14 (Original): The electronic apparatus according to Claim 13 wherein said light guide member has two opposing ends, and a plurality of parallel grooves are formed in a surface extending between said opposing ends of said light guide member.

Claim 15 (Original): The electronic apparatus according to Claim 1 wherein said liquid crystal display device further includes a light guide plate for directing light entering thereinto from at least one of said plurality of light sources through an end surface thereof toward said liquid crystal unit, and an elongated light guide member tapering from one end toward an opposite end for directing light entering thereinto through said one end toward said light guide plate.

Claim 16 (Original): The electronic apparatus according to Claim 1 wherein said liquid crystal display device further includes a light guide member for causing light entering thereinto from said light emitting diode through one surface thereof to go out from said light guide member through another surface thereof, and a light guide plate for directing said light entering thereinto from said light guide member through an end surface thereof toward said liquid crystal unit and for directing light entering thereinto from said cold cathode fluorescent lamp through an end surface thereof toward said liquid crystal unit.

Claim 17 (Original): The electronic apparatus according to Claim 1 wherein said liquid crystal display device further includes a first light guide plate for directing light entering

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thereinto through an end surface thereof from said cold cathode fluorescent lamp toward said liquid crystal unit, and a second light guide plate for directing light entering thereinto through an end surface thereof from said light emitting diode toward said liquid crystal unit.

Claim 18 (Original): The electronic apparatus according to Claim 1 wherein said liquid crystal display device further includes a light guide member for causing light entering thereinto from said light emitting diode through one surface thereof to go out from said light guide member through another surface thereof, a first light guide plate for directing said light of said light emitting diode entering thereinto through an end surface thereof from said light guide member toward said liquid crystal unit, and a second light guide plate for directing light entering thereinto through an end surface thereof from said cold cathode fluorescent lamp toward said liquid crystal unit.

Claim 19 (Currently Amended): A liquid crystal display device comprising:
a plurality of light sources including at least one cold cathode fluorescent lamp and at least one light emitting diode;
a liquid crystal panel;
a light guide plate for causing light entering thereinto through an end surface thereof from at least one of said plurality of light sources to go out through another surface thereof toward said liquid crystal panel; and

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a controller for selecting at least one of said plurality of light sources in accordance with desired brightness, determining brightness of the selected light source in accordance with said desired brightness, and operating said selected light source,

said controller selecting said cold cathode fluorescent lamp when said desired brightness is above a predetermined threshold, and

said controller selecting said light emitting diode, when said desired brightness is equal to or lower than said predetermined threshold, and when a battery is available as a power supply and an AC power supply is not available.